ENGINEERING GDF EVALUATION

April 17, 2003

STU LAMBERT, INC. – REDWOOD SERVICE STATION; GDF#8467
Application #6248

Stu Lambert, Inc., on behalf of Redwood Service Station, submitted this application to increase the gasoline volume sales. The facility is located at 899 Broadway, Sonoma, CA.

This station is within 1000 feet of the outer boundary of Sonoma Valley High School. California Health and Safety Code Section 42301.6 requires that a public notice be prepared and distributed to each address located within 1000 feet of a source that emits hazardous air emissions. In addition, the public notice must be distributed to parents and guardians of students enrolled in any school that is located within one-quarter mile of the Redwood Service Station.

The Redwood Service Station facility operates the following equipment: Two (2) 20,000-gallon underground fuel storage tanks. One of the two tanks is split into three compartments (5K diesel fuel and 5K & 10K gasoline fuel) and associated piping. Three (3) gasoline dispensers equipped with six (6) three-product gasoline nozzles. This facility is equipped with Phase I (Two-Point) and Phase II (Balance) vapor recovery systems.

The gasoline dispensing equipment described above was installed in November of 2000 with the benefit of an Authority to Construct (A/N 244) and is therefore was not subject to the Enhanced Vapor Recovery (EVR) requirements effective July 1, 2001. The gasoline dispensing equipment, although in place since November of 2000, has not been placed into operation. The fuel tanks remain empty and have not yet received gasoline.

Emission Calculations:

Emission factors are taken from the Gasoline Service Station Industrywide Risk Assessment Guidelines developed by the California Air Pollution Officers Association's (CAPCOA) Toxics Committee. The increased emissions of POC (HC) include emissions from loading, breathing, refueling and spillage. The new annual gasoline throughput limit for this facility is based on a Risk Screening Assessment and Regulation 8-7-301 and 302.

POC (HC) = (1.27 lb/1000 gal)(1.035 MM gal/yr) = 1,345.5 lb/yr
= 3.69 lb/day (365 day/yr)
Cumulative Increase = 0.7 TPY

Toxics Emissions and Risk Screening Analysis:

The toxic air contaminant of concern at this site is benzene, a carcinogen. Benzene is emitted during gasoline dispensing operations. The estimated increase in emission rate and annual emissions of benzene are greater than the toxic trigger level (6.7 lb/yr), therefore an Air Toxics Risk Screening is required. According to the risk screening analysis, the maximum cancer risk is 10 chances in a million and the risk at the school is 0.1 chances in a million for proposed increase of annualized gasoline sales (Ref.; Interoffice Memorandum dated 10/28/2002). This level of risk is considered acceptable under the District's Risk Management Policy for operations that meet the requirements for BACT. As defined in the Toxic Division Risk Management Policy, the impact is acceptable and the facility passes the screening assessment

Statement of Compliance:

The operation of the gasoline dispensing facility is subject to and in compliance with Regulation 8 – Organic Compounds, Rule 7 – Gasoline Dispensing Facilities and California Air Resources Board (CARB) Executive Order G-70-97-A and G-70-17-AD. The operation of this facility meets the requirement of 8-7-301 and 302 (Phase I and Phase II, respectively).

This operation triggers TBACT. Compliance with TBACT for a gasoline dispensing facilities is achieved by limiting the annual gasoline sales to a maximum annual throughput increase that corresponds to a cancer risk of ten in a million. TBACT is compliance with Regulation 8-7-301 through 312 and conformance with CARB certification demonstrated through piping configuration, equipment list and District source test procedures (District approved ST-27 and 30 test results).

This project is considered to be ministerial under Regulation 2-1-311 because it is evaluated in accordance with Chapter 3.2 of the Permit Handbook (Gasoline Dispensing Facilities). And, therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard conditions and standard emission factors and therefore is ministerial as defined by CEQA.

Permit Conditions:

Pursuant to BAAQMD Toxic Section Policy, this facility's annual gasoline throughput shall not exceed 1.072 million gallons in any consecutive 12-month period.

Recommendation:

I recommend that an Authority to Construct be issued to Stu Lambert, Inc. – Redwood Service Station at 899 Broadway, Sonoma, limiting the annual gasoline quantity to the total amount determined by the risk screening analysis.

Exemptions:

None

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By: John Joseph
Permit Coordinator